

ABSTRACT

A small-sized uni-directional optical power monitor with an excellent directional characteristic is disclosed. The monitor comprises: a GRIN lens having a tap film for transmitting and reflecting an optical signal from an input and an output optical fiber with a predetermined ratio; and a photodiode having a lens for detecting and measuring part of the optical signal that has transmitted through the tap film. The tap film of the GRIN lens is connected to the photodiode by an opaque black sleeve having two continuous circular holes serving as an internal optical path between them. The two circular holes are parallel to each other, their center axes are shifted from each other, and the two circular holes communicate each other through a through-hole at the sleeve intermediate position. The portion of the optical signal coming from one of the optical fibers and transmitting through the tap film passes through the two circular holes and the through-hole and is detected by the photodiode. Since one of the circular holes has a vertical wall at the sleeve intermediate position, an optical signal coming from the other optical fiber and transmitting through the tap film is obstructed by the wall and is not measured by the photodiode.